

Lab Assignment 2

Due 2030

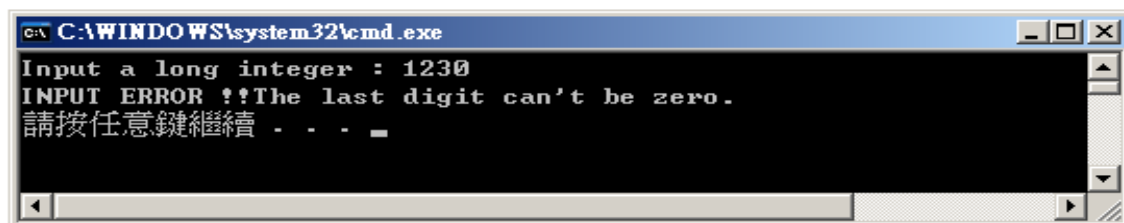
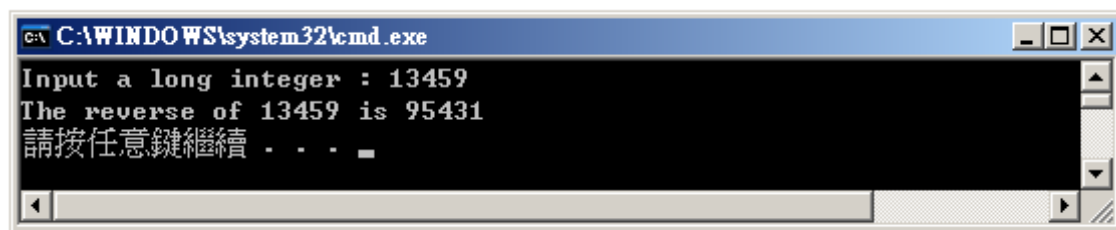
Lab Grading Policy: Attendance 20%, Score 80%

In case you have difficulty in finishing the exercises on time, you should upload them before **noon on Saturday** and a penalty of 20% discount will be applied on your score. No late submission is permitted. We will in general post the reference solutions **by Sunday**.

Exercise 1 (40%): Write a C++ program to reverse an arbitrary long integer. For example, the reverse of 13459 is 95431. The function prototype looks like:

```
| string reverseNumber(const string&);
```

If the input of the last digit is zero, you should just simply output a message to indicate “INPUT ERROR”. Your main program should allow users to enter suitable inputs from the screen and proper outputs after executing the function. Below are typical runs.



Exercise 2 (40%): Write a program to find how many times a word has appeared in a file. When you perform the counting, make sure the results are insensitive to case and punctuation. For example, we treat her Her her. HER!!! the same. Use `Alice_story1.txt` available from the course website to test your implementation. Below is a sample run:

```
Enter the word to be found in Alice_story1.txt (! to quit): her
The word her has appeared 4 times in Alice_story1.txt

Enter the word to be found in Alice_story1.txt (! to quit): Her.
The word Her. has appeared 4 times in Alice_story1.txt

Enter the word to be found in Alice_story1.txt (! to quit): it
The word it has appeared 3 times in Alice_story1.txt

Enter the word to be found in Alice_story1.txt (! to quit): IT
The word IT has appeared 3 times in Alice_story1.txt

Enter the word to be found in Alice_story1.txt (! to quit): DaDDy
The word DaDDy has appeared 1 times in Alice_story1.txt

Enter the word to be found in Alice_story1.txt (! to quit): !
```